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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/998,860	11/15/2001	Bruce A. Judson	000192	6945

23696 7590 08/06/2004

Qualcomm Incorporated
Patents Department
5775 Morehouse Drive
San Diego, CA 92121-1714

EXAMINER

GESESSE, TILAHUN

ART UNIT	PAPER NUMBER
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2684

DATE MAILED: 08/06/2004

17

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/998,860

Applicant(s)

JUDSON ET AL.

Examiner

Tilahun B Gesesse

Art Unit

2684

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 31-33.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☐ Claim(s) _____ is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 31-33 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

1. This is in response to request for contented examination filed 6/03/04 in which claims 31-33 are pending.

Claim Rejections - 35 USC § 102

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371(c) of this title before the invention thereof by the applicant for patent.

The changes made to 35 U.S.C. 102(e) by the American Inventors Protection Act of 1999 (AIPA) and the Intellectual Property and High Technology Technical Amendments Act of 2002 do not apply when the reference is a U.S. patent resulting directly or indirectly from an international application filed before November 29, 2000. Therefore, the prior art date of the reference is determined under 35 U.S.C. 102(e) prior to the amendment by the AIPA (pre-AIPA 35 U.S.C. 102(e)).

3. Claims 31-33 are rejected under 35 U.S.C. 102(e) as being anticipated by Katz (6,731,954).

As to claim 31, Katz discloses a method for beam forming by a base station (figures 3A-3D), the method comprising:

providing a mobile station's position to a spatial processing unit (232) (column 5, lines 28-45, column 3, lines 55-67 and figure 3).

Katz inherently discloses providing a base station's position to the spatial process.

Katz discloses calculating the direction of the mobile station with respect to base station (column 6, lines 27-51).

Katz discloses calculating the number and direction of beams according to a database record for the mobile station's position and angle of arrival (column 5, line 51-column 6, line 12 and figure 3).

Katz discloses determining the phase of each element of an antenna according to the number and direction of beams (column 3, lines 50-67). The combined signal is considered a signal with higher gain.

As to claim 32, As to claim 31, Katz discloses a base station (126), comprising: means for providing a mobile station's position to a spatial processing unit (232) (column 5, lines 28-45, column 3, lines 55-67 and figure 3).

Katz inherently discloses means for providing a base station's position to the spatial process.

Katz discloses means for calculating the direction of the mobile station with respect to base station (column 6, lines 27-51).

Katz discloses means for calculating the number and direction of beams according to a database record with the mobile station's position and angle of arrival (column 5, line 51-column 6, line 12 and figure 3).

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Katz discloses means for determining the phase of each element of an antenna according the number and direction of beams (column 3, lines 50-67). The combined signal is considered a signal with higher gain.

As to claim 33, Katz discloses a base station (126) comprising: a processor (232) for a mobile station's position and the base station's to processor ((column 5, lines 28-45 ,column 3, lines 55-67 and figure 3). Katz discloses a spatial processing unit (232 DSP of figure 2), for calculating the direction of the mobile station with respect to base station (column 6, lines 27-51) for calculating the numbe and direction of beams according database in record with the mobile station's position and angle of arrival (column 5, line 51-column 6, line 12 and figure 3) and determining the phase of each element of an antenna according the number and direction of beams (column 3, lines 50-67). The combined signal is considered a signal with higher gain.

Conclusion

4. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Hilsenrath et al (6,026,304) discloses a method and apparatus for location finding in a wireless communication system use multi-path signals (abstract).

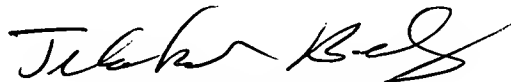
Any inquiry concerning this communication or earlier communications from the examiner should be directed to Tilahun B Gesesse whose telephone number is 703-308-5873. The examiner can normally be reached on flex.

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Nay Maung can be reached on 703-308-7745. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Tilahun Gesesse
Primary Examiner
US Patent and Trademark Office
Tel. # 703-308-5873



TILAHUN GESESSE
PATENT EXAMINER

August 2, 2004